KOLEKTOR

The transformer monitoring system developed by Kolektor Igin enables the measurement, capture, display and export of power transformer operating data. The system monitors the transformer throughout its lifetime, displays and monitors key electrical, physical and chemical parameters, and calculates the expected lifetime of the transformer based on these parameters. The monitoring system is designed, built, programmed, tested and commissioned by us.

KOLEKTOR IGIN

TRANSFORMER MONITORING SYSTEM

MAIN FEATURES OF THE SYSTEM

- **Capture of measurements from sensors mounted on the transformer;**
(control of the cooling system, Buchholz protection, oil level, load currents, oil and winding temperature, etc.)
- **Access to the data display via a web-based user interface.**
- **The powerful microprocessor unit of the CX5100 series from Beckhoff, Germany, allows operation in demanding temperature conditions (-25°C–60°C).**

TRANSFORMER MONITORING SYSTEM WITHOUT SERVER

The user interface can only be accessed **via a web browser.**

Short-term data archiving (up to one year).

Display of data for a specific transformer.

TRANSFORMER MONITORING SYSTEM WITH SERVER

The user interface can be accessed via web browser and **via touch-screen computer integrated** in the server cabinet.

Long-term archiving of data (10 years and more).

Collection and display of data from multiple transformers in one place.

AT THE CLIENT'S REQUEST, THE FOLLOWING ADDITIONAL COMMUNICATION PROTOCOLS CAN BE INTEGRATED TO CONNECT TO THE CLIENT'S CENTRAL SERVER IN BOTH CASES;

- MODBUS TCP
- MODBUS RTU
- IEC 60870-5-101
- IEC 60870-5-104
- IEC 61850

AT THE CLIENT'S REQUEST, THE FOLLOWING ADDITIONAL COMMUNICATION PROTOCOLS CAN BE INTEGRATED TO CONNECT TO THE CLIENT'S CENTRAL SERVER IN BOTH CASES

- A dissolved gas monitoring system,
- A through-hole monitoring system,
- A through-hole monitoring system.

USER INTERFACE

The user interface is developed using modern web tools (HTML5, CSS3, Javascript) and is accessible as a website. This means that it can be accessed with newer web browsers such as Chrome, Edge and Mozilla. It is adaptable and can be used on different screens (computers, tablets and smartphones). All energy transformer measurements, messages, trends and parameters can be accessed through the user interface to set process value warning and alarm levels and model calculations.

- Hot spot temperature
- Relative humidity calculation of paper insulation
- Insulation ageing factor
- Insulation ageing factor
- Transformer overload capability

- Withstand voltage
- Bubble temperature
- Permissible overload time
- Transformer ageing
- Data analysis

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